(FILE 'HOME' ENTERED AT 13:07:04 ON 15 MAR 2007)

	FILE 'REGISTRY' ENTERED AT 13:07:30 ON 15 MAR 2007
L1	STRUCTURE UPLOADED
L2	1 S L1
L3	28 S L1 SSS FULL
	FILE 'CAPLUS' ENTERED AT 13:08:53 ON 15 MAR 2007
L4	35 S L3
L5	4 S L4 AND (CANCER OR TUMOR OR NEOPLAS? OR PROSTATE OR COLON OR B
	·
	FILE 'USPATFULL' ENTERED AT 13:10:23 ON 15 MAR 2007
L6	23 S L3
L7	11 S L6 AND (CANCER OR TUMOR OR NEOPLAS? OR PROSTATE OR COLON OR B
L8	0 S L7 NOT PY>2001
L9	2 S L7 NOT PY>2003

=> file registry
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FILE 'REGISTRY' ENTERED AT 13:07:30 ON 15 MAR 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 MAR 2007 HIGHEST RN 926494-79-3 DICTIONARY FILE UPDATES: 14 MAR 2007 HIGHEST RN 926494-79-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>

Uploading C:\Program Files\Stnexp\Queries\10644418terpenechroman.str

•

•

chain nodes :

```
12 13 14 15 16 17 18 19 20 22 23 24 25 26 27 28 29 30
                                                            31 32 33
34 35 36 44
            45 46 48 49 50 51 52 53
                                           55 56 57
                                        54
                                                     58
                                                        59 60
                                                               61 62
63 64 65
      68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86
66 67
87 88 89 90
91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108
109 110 111 112
113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129
130 131 132
133 134 135 136 145 146 148
ring nodes :
1 2 3 4 5 6 7 8 9 10
chain bonds :
1-46 2-12 3-45 4-31 8-16 8-148 12-44 13-14 13-15 17-18 18-19 18-20 22-23
23-29 24-25 24-30 25-26 27-28 28-32 32-33 33-34 33-35 33-36 48-49 49-50
50-51 51-52
52-53 53-54 54-55 55-56 56-57 57-58 58-59 59-60 60-61 61-62 62-63 63-64
65-66 66-67
67-68 68-69 68-118 69-70 70-71 71-72 72-73 72-119 73-74 74-75 75-76
76-77 76-120 78-79
79-80 80-81 81-82 82-83 83-84 85-86 86-87 87-88 88-89 88-101 89-90 90-91
91-92 92-93
92-94 95-96 95-146 96-97 96-145 97-98 97-99 99-100 102-103 103-104
104-105 105-106
105-115 106-107 107-108 108-109 109-110 109-116 110-111 111-112 112-113
113-114 113-117
```

```
121-122 122-123 123-124 124-125 124-134 125-126 126-127 127-128 128-129
128-135 129-130
130-131 131-132 132-133 132-136
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10
exact/norm bonds :
1-46 2-12 3-45 4-31 5-7 6-10 7-8 8-9 8-16 8-148 9-10 12-44 13-14 13-15
                                24-25 24-30 25-26 27-28 28-32 32-33 33-34
17-18 18-19 18-20 22-23 23-29
33-35 33-36
48-49 49-50 50-51 51-52 52-53 53-54 54-55 55-56 56-57 57-58 58-59 59-60
60-61 61-62
62-63 63-64 65-66 66-67 67-68 68-69 68-118 69-70 70-71 71-72
72-119 73-74 74-75
75-76 76-77 76-120 78-79 79-80 80-81 81-82 82-83 83-84 85-86 86-87 87-88
 88-89 88-101
89-90 90-91 91-92 92-93 92-94 95-96 95-146 96-97 96-145 97-98
                                                                  97-99
99-100 102-103
103-104 104-105 105-106 105-115 106-107 107-108 108-109 109-110 109-116
110-111 111-112
112-113 113-114 113-117 121-122 122-123 123-124 124-125 124-134 125-126
126-127 127-128
128-129 128-135 129-130 130-131 131-132 132-133 132-136
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
G1:0,N
G2:MeO,N
G3:H,CH3
G4: [*1], [*2], [*3], [*4], [*5]
G5:CH3,COOH,[*6],[*7],[*8],[*9],[*10],[*11],[*12]
Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS
20:CLASS 22:CLASS
23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS
31:CLASS 32:CLASS
33:CLASS 34:CLASS 35:CLASS 36:CLASS 44:CLASS 45:CLASS 46:CLASS 48:CLASS
49:CLASS 50:CLASS
                  53:CLASS 54:CLASS 55:CLASS 56:CLASS 57:CLASS
51:CLASS 52:CLASS
                                                                58:CLASS
59:CLASS 60:CLASS
61:CLASS 62:CLASS 63:CLASS 64:CLASS 65:CLASS 66:CLASS 67:CLASS 68:CLASS
69:CLASS 70:CLASS
71:CLASS 72:CLASS
                  73:CLASS 74:CLASS 75:CLASS 76:CLASS 77:CLASS 78:CLASS
79:CLASS 80:CLASS
.81:CLASS 82:CLASS 83:CLASS 84:CLASS 85:CLASS 86:CLASS 87:CLASS 88:CLASS
89:CLASS 90:CLASS
91:CLASS 92:CLASS 93:CLASS 94:CLASS 95:CLASS 96:CLASS 97:CLASS 98:CLASS
99:CLASS 100:CLASS
101:CLASS 102:CLASS 103:CLASS 104:CLASS 105:CLASS 106:CLASS 107:CLASS
108:CLASS 109:CLASS
110:CLASS
                   112:CLASS 113:CLASS 114:CLASS 115:CLASS 116:CLASS
         111:CLASS
117:CLASS 118:CLASS
119:CLASS 120:CLASS
                   121:CLASS 122:CLASS 123:CLASS 124:CLASS 125:CLASS
126:CLASS 127:CLASS
128:CLASS 129:CLASS
                   130:CLASS 131:CLASS 132:CLASS 133:CLASS 134:CLASS
135:CLASS 136:CLASS
145:CLASS 146:CLASS 148:CLASS
```

STRUCTURE UPLOADED L1

=> d l1

L1 HAS NO ANSWERS

L1

STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 13:08:17 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED -

270 TO ITERATE

100.0% PROCESSED

270 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

6385 4415 TO

PROJECTED ANSWERS:

1 TO 80

L2

1 SEA SSS SAM L1

=> d 12 scan

L21 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

Ethanol, 2-[[(2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12trimethyltridecyl]-2H-1-benzopyran-6-yl]oxy]-, hydrogen sulfate, compd. with N, N-diethylethanamine (1:1) (9CI)

C31 H54 O6 S . C6 H15 N MF

CM

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

ALL ANSWERS HAVE BEEN SCANNED

=> s l1 sss full FULL SEARCH INITIATED 13:08:33 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 5764 TO ITERATE

100.0% PROCESSED 5764 ITERATIONS SEARCH TIME: 00.00.01

28 ANSWERS

DEFACE TIME. 00.00.01

L3 28 SEA SSS FUL L1

=> d 13 scan

L3 28 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, 2-[[(2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl]oxy]- (9CI)
MF C31 H53 N O3

Absolute stereochemistry.

Me Me (CH₂) 3 R (CH₂) 3 R (CH₂) 3 CHMe₂

$$Me Me Me$$

$$Me Me$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):4

L3 28 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[[(3,4-dihydro-2,2,5,7,8-pentamethyl-2H-1-benzopyran-6-yl)oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-3,3-dimethyl-7-oxo-, [2S-[2α,5α,6β(S*)]]- (9CI)
MF C32 H39 N3 O8 S

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 28 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

IN Glycine, N-(carboxymethyl)-N-[[(2R)-3,4-dihydro-2,5,7,8-tetramethyl-2[(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl]oxy]acetyl]- (9CI)
MF C35 H57 N O7

Absolute stereochemistry.

PAGE 1-B

$$-(CH2)3$$
CHMe₂

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 28 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

IN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[[(3,4-dihydro-2,2,7,8-tetramethyl-2H-1-benzopyran-6-yl)oxy]acetyl]amino]phenylacetyl]amino]-3,3-dimethyl-7-oxo-, [2S-[2α ,5 α ,6 β (S*)]]- (9CI)

MF C31 H37 N3 O7 S

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 28 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

IN Ethanol, 2-[[(2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12trimethyltridecyl]-2H-1-benzopyran-6-yl]oxy]-, hydrogen sulfate, compd.
with N,N-diethylethanamine (1:1) (9CI)

MF C31 H54 O6 S . C6 H15 N

CM 1

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

─ CHMe2

CM 2

=> file caplus
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 172.55 172.76

FILE 'CAPLUS' ENTERED AT 13:08:53 ON 15 MAR 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 15 Mar 2007 VOL 146 ISS 12 FILE LAST UPDATED: 14 Mar 2007 (20070314/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s 13

L4 35 L3

=> s 14 and (cancer or tumor or neoplas? or prostate or colon or breast)

308833 CANCER

401123 TUMOR

484846 NEOPLAS?

50886 PROSTATE

60156 COLON.

75237 BREAST

L5 4 L4 AND (CANCER OR TUMOR OR NEOPLAS? OR PROSTATE OR COLON OR BREAST)

=> d l5 ti abs bib

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives for therapeutic use in the prevention and treatment of cancer

GI

Chroman derivs., such as I [X = 0, S, NR6; Y = 0, NR6; R1 = carboxyalkyl, carboxyalkenyl, etc.; R2, R3, R4 = H, Me, alkyl, etc.; R5 = alkyl, alkenyl, etc.; R6 = H, alkyl], were prepared for use in antitumor pharmaceutical compns. for inducing apoptosis in a cell, particularly a cancer cell. Thus, α -tocopherol derivative II was prepared in 88% yield by a reaction of BrCH2CO2Me with (R,R,R)- α -tocopherol using NaOH in DMF. The prepared chromans were assayed for growth inhibitory and apoptotic activity against a variety of human cancer cell lines.

AN 2004:618733 CAPLUS <<LOGINID::20070315>>

DN 141:174332

TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives for therapeutic use in the prevention and treatment of cancer

IN Sanders, Bob G.; Kline, Kimberly; Hurley, Laurence; Gardner, Robb; Menchaca, Marla; Yu, Weiping; Ramanan, Puthucode N.; Liu, Shenquan; Israel, Karen

PA Research Development Foundation, USA

SO U.S., 48 pp., Cont.-in-part of U.S. Ser. No. 404,001. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 4

FAN.CNT 4 PATENT NO.				KIND			DATE	. •	APPI	LICAT	ION :	DATE							
ΡI	US 6770672			B1	-	2004	•	 US 2	2000-	5025	- 92	20000211							
	US	6417	223			B1		2002	0709	•	US 1	1999-	4040	01		19	9990	923	
	CA	2399	802		A1			20010816		(CA 2	2001-	2399	802	. 20010209				
	WO	2001	0588	89	A1					1	WO 2	2001-1	US41	68					
		W :	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
			CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	
			HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	
			LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,	
			SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG,	UZ,	VN,	YU,	
			ZA,	ZW															
		RW:	-	-		•	· ·	-	-	-	•	TZ,	•	-	•	-	•	•	
												LU,					TR,	BF,	
			=	=	•	_		_	-	=	•	MR,	-	•	-				
	EP										EP 2001-909008								
		R:							-	-	•	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
								RO,	_		-					_			
	CN 1529701														0010				
								NZ 2001-520798					20010209						
								CN 2001-807536											
											2002-		20010209						
	US 2002107207			A1		2002	8080	1	US 2	2001-	8066			20	0011	105			

	US 6703384	B2	20040309		
	US 2004235938	A1	20041125	US 2003-644418	20030820
	US 2004097431	A1	20040520	US 2003-695275	20031028
PRAI	US 1998-101543P	P	19980923		
	US 1999-404001	A2	19990923		•
	US 1998-101542P	P	19980923		
	US 2000-502592	A	20000211		
	WO 2001-US4168	M ·	20010209		
	US 2001-8066	A3	20011105		
os	MARPAT 141:174332				

RE.CNT THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD 15 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 15 2-4 ti abs bib

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

Preparation of tocopherols, tocotrienols, other chromans and side chain TI derivs. as potential antiproliferative and proapoptotic agents

GI

$$R^3$$
 R^4
 R^5
 R^5
 R^1
 R^2
 R^5
 R^6
 R^6

Derivs. of tocopherol, tocotrienol and other chromans of formula I (X and ABY independently are oxygen, nitrogen or sulfur; when Y is nitrogen, nitrogen is substituted with R6 and R6 = H or Me; R1 = alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thiol ester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alc., ethers or nitrites; R2, R3 = hydrogen or R4; R4 = Me, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzyl ester, saccharide or amine; and R5 = alkenyl) were prepared as antiproliferative and proapoptotic agents for the potential treatment of cell proliferative diseases. α -tocopherol was treated with Me bromoacetate and NaOH in N, N-dimethylformamide to give II. II showed effective growth inhibitory properties (apoptotic inducing) in a wide variety of human cancer cell lines, including breast, prostate, cervical, and ovarian cancers with EC50 values ranging from 1-20 µg/mL.

2002:595501 CAPLUS <<LOGINID::20070315>> AN

DN 137:140656

Preparation of tocopherols, tocotrienols, other chromans and side chain TI derivs. as potential antiproliferative and proapoptotic agents

Sanders, Bob G.; Kline, Kimberly; Yu, Weiping IN

PA Research Development Foundation, USA

SO U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S. Ser. No. 502,592. CODEN: USXXCO

DT Patent

LA English

FAN. CNT 4

FAN.CNT 4 PATENT NO.						KINI		DATE			APPL	ICAT		DATE					
PI	US	2002	1072	07				2002		1	US 2	001-			0011				
	US	6703	384			B2		2004	0309										
	US	US 6417223				B1		2002	0709	1	US 1	999-	4040	01		19	99909	923	
	CN	CN 1706838 US 6770672 US 2002156024				· A		2005	1214	(CN 2	005-	1000	3855		19990923			
	US					B1		2004	0803	1	US 2	000-	5025	92		20000211			
	US					A1		2002	1024	1	US 2	002-	1220	19		20	00204	112	
	US 6645998 WO 2003039461				B2		20031111												
						A2		2003	0515		WO 2	002-	US35	147		20021101			
	WO	WO 2003039461				A3		2003	1113										
		W :	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,	
			DK,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	
			KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	
			MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	
			TR,	TT,	UA,	ŪĠ,	UZ,	VN,	YU,	ZA,	ZW								
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,	
			KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
			FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	
			CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG				
	AU	2002	3539	71		A1		2003	0519		AU 2	002-	3539	71		2	0021	101	
	US	2004	0974	31		A1		2004	0520		US 2	003-	6952	75		2	0031	028	
PRAI	US	1998	-101	542P		P		1998	0923										
•	US	1999	-404	001		A2		1999	0923										
	US	2000	-502	592		A2		2000	0211										
	US	1998	-101	543P		P		1998	0923										
	CN	1999	-812	829		A3		1999	0923										
	US 2001-8066					Α		2001	1105										
WO 2002-US35147				W		2002	1101												
0S	MARPAT 137:140656																		

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives that induce cell apoptosis for therapeutic use as antiproliferative agents

II

GI

AB Tocopherol analogs, such as I [X = 0, NH, S; Y = 0, NH, S; R1 = alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, carboxamide, thiocarboxyl, etc.; R2, R3, R4 = H, Me, benzyl, carboxyl, carboxamide, amine, saccharide; R5 = alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, carboxamide], were prepared for pharmaceutical use as antiproliferative agents which induce cell apoptosis for treatment of cancers and diseases involving cell proliferation, such as autoimmune diseases, psoriasis, etc.. Thus, (R,R,R)-α-tocopherol derivative II was prepared in 88% yield by condensation of (R,R,R)-α-tocopherol and BrCH2CO2Me in DMF using NaOH followed by hydrolysis with 5 N HCl. The prepared tocopherol analogs were tested for their ability to induce apoptosis in a number of cancer cell lines, such as breast, cervical, colon, prostate, etc.

AN 2001:597976 CAPLUS <<LOGINID::20070315>>

DN 135:166941

TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives that induce cell apoptosis for therapeutic use as antiproliferative agents

IN Sanders, Robert G.; Kline, Kimberly; Hurley, Laurence; Gardner, Robb; Menchaca, Marla; Yu, Weiping; Ramanan, Puthucode N.; Liu, Shenquan; Israel, Karen

PA Research Development Foundation, USA

SO PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

	PATENT NO.						KIND DATE			-	APPL	ICAT:	DATE							
							-			•										
ΡI	I WO 2001058889			A1 20010816			1	WO 2	001-1		20010209									
		W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,		
			CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,		
			HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,		
			LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,		
			SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG,	UΖ,	VN,	YU,		
			ZA,	ZW																
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,		
			DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,		
			ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GW,	ML,	·MR,	NE,	SN,	TD,	TG		•		
•	US 6770672				B1		2004	0803	,	US 2	000-		20	0000	211					
	CA	2399	802			A1		20010816			CA 2	001-		20	0010	209				
	EP	1254	130			A1 20021106			EP 2001-909008						20010209					
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,		
			IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR								
	JP	2004	5042	68		${f T}$		2004	0212		JP 2	001-	5584	39		20	0010	209		
	NZ	5207	98			A		2004	0528		NZ 2	001-	5207	98		20	0010	209		
	RU	2263	672			C2		2005	1110	•	RU 2	002-	1241	35		20	0010	209		
PRAI	US	2000	-502	592		A		2000	0211											
US 1998-101543P				P		1998	0923													
	US	1999	-404	001		A2	1999	0923												
	WO	2001	-US4	168		W 20010209														
os	41																			

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives for use as antitumor agents and for inducing cell apoptosis GI

$$R^3$$
 R^4
 R^5
 R^1
 R^2
 R^2
 R^5
 R^5
 R^2
 R^2

AB Chromans I [R1 = alkyl, alkenyl, alkynyl, aryl, herteroaryl, carboxyl, carboxamide, thioamide, saccharide, amine, sulfate, phosphate, etc.; R2, R3, R4 = H, Me, benzylcarboxylate, saccharide, amino, etc.; R5 = alkyl, alkenyl, alkynyl, aryl, herteroaryl, carboxyl, carboxamide; X = O, NH, S] were prepared for pharmaceutical use as antitumor agents and cell apoptosis inducing agents. Thus, tocopherol derivative II (R1 = CH2CO2H, X = O) was prepared in 88% yield via O-alkylation of (+)-α-tocopherol with Me bromoacetate. The prepared chromans were tested for cell apoptosis activity against a variety of cancer cell lines.

II

AN 2000:209907 CAPLUS <<LOGINID::20070315>>

DN 132:237223

TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives for use as antitumor agents and for inducing cell apoptosis

IN Kline, Kimberly; Sanders, Bob G.; Hurley, Laurence; Gardner, Robb;
Menchaca, Marla; Yu, Weiping; Ramanan, Puthucode N.; Liu, Shenquan;
Israel, Karen

PA Research Development Foundation, USA

SO PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

	PAT	ATENT NO.					KIND DATE					ICAT		DATE							
PI	WO 2000016772				A1	_	2000	1	 WO 1	.99 9 -		19990923									
		W :	AE,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,			
			DE,	DK,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,			
			JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,			
												SD,									
			TM,	TR,	TT,	UA,	UG,	UZ,	VN,	YU,	ZA,	ZW	_	_	_		_				
		RW:	GH,	GM,	KE,	LS,	MW,	SD,	SL,	SZ,	TZ,	ŬĠ,	ZW,	AT,	BE,	CH,	CY,	DE,			
			DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,			
			CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG							
	CA	2345	079			A1		2000	0330	(CA 1	999-	2345	079		19	9990	923			
	AU	9961	553			A1		20000410			AU 1999-61553						19990923				
	AU	7570	13			B2		20030130													
	EP	1115	398			A1		2001	0718	EP 1999-948352					19990923						
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,			
			IE,	SI,	LT,	LV,	FI,	RO													
	CN	1325	303			A		2001	1205	(CN 1	999-	8128	29		19	9990	923			
	JP	2002	52644	46		${f T}$		2002	0820	•	JP 2	000-	5737	33		19	9990	923			
	NZ	5107	32			A		2004	0130]	NZ 1	999-	5107	32		19	9990	923			
	RU	2232	758			C2		2004	0720]	RU 2	001-	1110	19		19	9990	923			
	CN	1706838			A		2005	1214		CN 2	005-	1000	3855		19	9990	923				

	IL	14208	2		A	20051218	IL	1999-1	420,8	32	1	19990923	
	TW	59269	5		В	20040621	TW	1999-8	8120	073	1	19991117	
	ZA	20010	02057		A	20020319	ZA	2001-2	057		2	20010313	
PRAI	US	1998-	101542P		P	19980923							
	CN	1999-	812829		A3	19990923							
	WO	1999-	US21778		W	19990923		•					
os	MAF	RPAT 1	32:237223										
RE.CN	$\mathbf{T}V$	3	THERE ARE	3	CITED	REFERENCES	AVA.	ILABLE	FOR	THIS	RECORI)	

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file uspatfull COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 24.79 197.55 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -3.12 -3.12

FILE 'USPATFULL' ENTERED AT 13:10:23 ON 15 MAR 2007
CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 13 Mar 2007 (20070313/PD)
FILE LAST UPDATED: 13 Mar 2007 (20070313/ED)
HIGHEST GRANTED PATENT NUMBER: US7191469
HIGHEST APPLICATION PUBLICATION NUMBER: US2007056070
CA INDEXING IS CURRENT THROUGH 13 Mar 2007 (20070313/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 13 Mar 2007 (20070313/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2006
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2006

=> s 13 L6 23 L3

=> s l6 and (cancer or tumor or neoplas? or prostate or colon or breast)
128026 CANCER
100882 TUMOR
36619 NEOPLAS?
40358 PROSTATE

40358 PROSTAT 48313 COLON 60307 BREAST

L7 11 L6 AND (CANCER OR TUMOR OR NEOPLAS? OR PROSTATE OR COLON OR BREAST)

=> d 17 1-11 ti

L7 ANSWER 1 OF 11 USPATFULL on STN

TI Pharmaceutical compositions with synchronized solubilizer release

L7 ANSWER 2 OF 11 USPATFULL on STN

TI Pharmaceutical compositions with synchronized solubilizer release

L7 ANSWER 3 OF 11 USPATFULL on STN

TI Pharmaceutical compositions with synchronized solubilizer release

L7 ANSWER 4 OF 11 USPATFULL on STN

TI Compositions for oral administration of camptothecin and its analogs

L7 ANSWER 5 OF 11 USPATFULL on STN

TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

- L7 ANSWER 6 OF 11 USPATFULL on STN
- TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof
- L7 ANSWER 7 OF 11 USPATFULL on STN
- TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof
- L7 ANSWER 8 OF 11 USPATFULL on STN
- TI Inhalation compositions, methods of use thereof, and process for preparation of same
- L7 ANSWER 9 OF 11 USPATFULL on STN
- TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof
- L7 ANSWER 10 OF 11 USPATFULL on STN
- TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof
- L7 ANSWER 11 OF 11 USPATFULL on STN
- TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses therof
- => s 17 not py>2001 1809034 PY>2001
- L8 0 L7 NOT PY>2001
- => s 17 not py>2003 1278672 PY>2003
- L9 2 L7 NOT PY>2003
- => d l9 1-2 ti abs bib
- L9 ANSWER 1 OF 2 USPATFULL on STN
- TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof
- AB The present invention provides an antiproliferative compound having the structural formula ##STR1##

wherein X is oxygen, nitrogen or sulfur; R.sup.1 is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thiolester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers and nitriles; R.sup.2 is hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.sup.3 is selected from the group consisting of hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.sup.4 is of methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; and R.sup.5 is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, amide and ester. Also provided is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

- AN 2002:280579 USPATFULL <<LOGINID::20070315>>
- TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof
- IN Sanders, Bob G., Austin, TX, UNITED STATES
 Kline, Kimberly, Austin, TX, UNITED STATES
 Hurley, Laurence, Austin, TX, UNITED STATES
 Gardner, Robb, Austin, TX, UNITED STATES

Menchaca, Marla, Austin, TX, UNITED STATES

Yu, Weiping, Austin, TX, UNITED STATES

Ramanan, Puthucode N., Austin, TX, UNITED STATES

Liu, Shenquan, Austin, TX, UNITED STATES

Israel, Karen, Austin, TX, UNITED STATES

PA Research Development Foundation (U.S. corporation)

PI US 2002156024 A1 20021024

US 6645998 B2 20031111

AI US 2002-122019 A1 20020412 (10)

RLI Division of Ser. No. US 1999-404001, filed on 23 Sep 1999, GRANTED, Pat. No. US 6417223

PRAI US 1998-101542P 19980923 (60)

DT Utility

FS APPLICATION

LREP Benjamin Aaron Adler, ADLER & ASSOCIATES, 8011 Candle Lane, Houston, TX, 77071

CLMN Number of Claims: 20

ECL Exemplary Claim: 1

DRWN 14 Drawing Page(s)

LN.CNT 2170

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 2 OF 2 USPATFULL on STN

TI. Tocopherols, tocotrienols, other chroman and side chain derivatives and uses therof

AB The present invention provides an antiproliferative compound having the structural formula ##STR1##

wherein X is oxygen, nitrogen or sulfur; R.sup.1 is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thiolester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers and nitriles; R.sup.2 is hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.sup.3 is selected from the group consisting of hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R.sup.4 is of methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; and R.sup.5 is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, amide and ester. Also provided is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:168253 USPATFULL <<LOGINID::20070315>>

TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses therof

IN Sanders, Bob G., Austin, TX, United States
Kline, Kimberly, Austin, TX, United States
Hurley, Laurence, Austin, TX, United States
Gardner, Robb, Austin, TX, United States
Menchaca, Marla, Austin, TX, United States
Yu, Weiping, Austin, TX, United States
Ramanan, Puthucode N., Austin, TX, United States
Liu, Shenquan, Austin, TX, United States

Israel, Karen, Austin, TX, United States
Research Development Foundation, Carson City, NV, United States (U.S.

corporation)

PI US 6417223 B1 20020709 AI US 1999-404001 19990923 (9)

PRAI US 1998-101542P 19980923 (60)

DT Utility FS GRANTED

PA

EXNAM Primary Examiner: Wilson, James O.; Assistant Examiner: Maier, Leigh C.

LREP Adler, Benjamin Aaron CLMN Number of Claims: 3 ECL Exemplary Claim: 1

DRWN 14 Drawing Figure(s); 14 Drawing Page(s)

LN.CNT 1959

CAS INDEXING IS AVAILABLE FOR THIS PATENT.